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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,015	06/05/2007	Kenji Kuwahara	58306US004	9101
32692 7590 01/18/2008 3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			EXAMINER LEUNG, QUYEN PHAN	
			ART UNIT	PAPER NUMBER
			2874	
			NOTIFICATION DATE	DELIVERY MODE
			01/18/2008	ELECTRONIC

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
10535015	6/5/2007	KUWAHARA ET AL.	58306US004

3M INNOVATIVE PROPERTIES COMPANY  
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**EXAMINER**

Quyen P. Leung

ART UNIT	PAPER
2874	20080108

DATE MAILED:

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**Commissioner for Patents**

Please find attached a SUPPLEMENTAL EXAMINERS AMENDMENT that corrects for a typographical error in the first line of the EXAMINERS AMENDMENT mailed 01/04/2008. The SUPPLEMENTAL EXAMINERS AMENDMENT now correctly states that claims 8-14 are allowed, to match the information in the Notice of Allowance (PTO-37) mailed 01/04/2008.

/Quyen Leung/  
Quyen Leung  
Primary Patent Examiner  
Group Art Unit 2874

### SUPPLEMENTAL EXAMINER'S AMENDMENT

Claims 8-14 are allowed.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

- Claims 9-14 depend upon canceled claim 1. They have been amended to depend upon claim 8.

The following is an examiner's statement of reasons for allowance:

The cited prior art do not teach or fairly suggest an optical interconnection sheet comprising: (a) **at least one channel in which at least one optical fiber or an optical fiber ribbon cable can be inserted for use**; and (b) a layered structure for maintaining the at least one channel substantially in a two-dimensional plane by holding the channel in such a manner that **both ends of the channel at least reach respective edges of the optical interconnection sheet**.

The closest cited prior art Bonanni et al (US 5,204,925 or JP 07-281052) teaches an optical interconnection device that can easily form an optical connection between circuit packages and can easily replace a defective optical fiber with a new optical fiber. See figures 1-7.

However, Bonanni et al fails to teach the emboldened feature above that allows for easily replacing a defective optical fiber with a new optical fiber, by removing the entire defective fiber and then inserting a new one into the claimed channel. Note Bonanni et al's Figure 5 and col. 3 lines 22-40 which teaches how if fiber (20) were found to be defective a short piece of the cover layer (25) at the end of the tabs (12) is cut away exposing the fiber ends and the ends of defective fiber cut off. A new adhesive coated fiber (50) is placed on the top layer (25) overlying essentially the same position as the defective fiber (20).

Applicant's claimed invention, especially the emboldened features above allows the following advantageous benefits (see applicant's specification, pages 6-7): "For example, because the optical fiber is inserted in the channel, the inserted optical fiber can be removed if necessary. As a result, the optical fiber extending from the optical interconnection sheet need not be provided with an extra length. Also, because a defective fiber can be removed and a new optical fiber inserted, repairability in the fiber end processing improves, increasing the fabrication yield of the optical interconnection sheet..."

Other related art include: Dalgoutte (4,078,910) teaches glass sleeve fiber joining and suggests protecting the joint with heat shrink tubing fitted over the sleeve. Xu (4,923,268) teaches fiber optic coupler including heat shrinkable tubing. Dekeyser et al (5,066,095) teaches jointing box for optical fiber cables. Iapicco (5,185,840) teaches a branching method for a multifiber fiber optic cable. Sasaki et al (6,416,232) teaches device for optical interconnection. Sukegawa et

al (USP 6,567,603) which teaches an optical interconnection apparatus and process for fabrication of the same. Kawase (6,839,475) teaches optical connection component.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quyen P. Leung whose telephone number is (571) 272-8188. The examiner can normally be reached on normally M-F, 6:15 am - 2:45 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Quyen Leung/  
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qpl